

# BRITISH

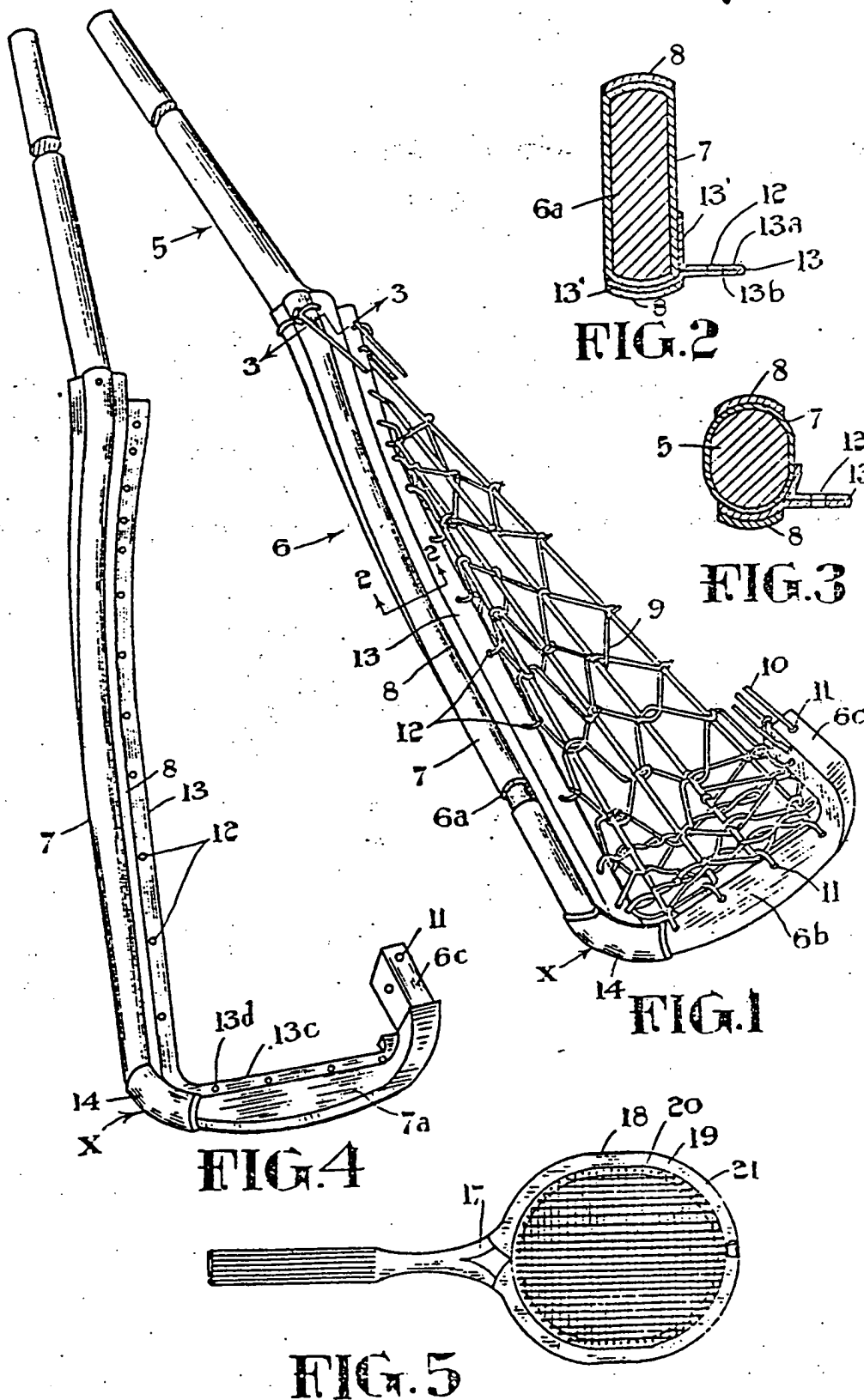
## 2-1935

424,742 COMPLETE SPECIFICATION

1 SHEET

by Muir

[This Drawing is a reproduction of the Original on a reduced scale.]



# PATENT SPECIFICATION

Application Date : May 1, 1934.

No. 13132/34.

Complete Specification Accepted : Feb. 27, 1935.

## COMPLETE SPECIFICATION

424,742

EXAMINER'S COPY

COPY

Div. 62



### Improvements in Lacrosse Sticks, and Tennis and like Rackets

I, JAMES MUIR, a Subject of the King of Great Britain, and residing at 851 McEachran Avenue, in the City of Outremont, Province of Quebec, and Dominion of Canada, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 This invention relates to game apparatus and is more particularly concerned with improvements in lacrosse sticks and tennis and like rackets. According to the present invention in games apparatus of the character described the net-work supporting frame is substantially encased in a sheath of weatherproof material which presents relatively thick pad-like portions at opposite edges of the frame and has associated therewith a lacing strip to which strands of the net-work are attached without passing through the frame.

In the case of a lacrosse stick, this sheath serves a three-fold purpose. It provides a weatherproof covering for the frame so that warping is substantially reduced; it serves as a cushion minimizing danger of serious injury to a player struck by the frame as frequently occurs in actual play; and it also enables the frame to be made lighter than heretofore without loss of strength by providing a lacing strip through which strands of the net may be passed instead of being passed through openings in the frame, as formerly. As applied to tennis rackets, the sheath preferably comprised of rubber serves as a weatherproof covering for the frame and has a lacing strip through which the strands of the net-work are passed instead of being passed through openings in the frame itself.

Proceeding now to a more detailed description reference will be had to the accompanying drawings, wherein—

Fig. 1 is a perspective view of a lacrosse stick constructed in accordance with this invention.

Fig. 2 is a transverse sectional view through one side of the net-work frame, said view being taken substantially along the line 2-2 of Fig. 1.

Fig. 3 is a transverse sectional view through the handle portion of the stick

taken substantially along the line 3-3 of Fig. 1.

Fig. 4 is a view similar to Fig. 1 but showing a slight modification with respect to the application of the rubber sheath. In this view the net portion of the stick is omitted for the sake of clearness.

Fig. 5 is a plan view of a tennis racket having the frame equipped with a rubber sheath in accordance with this invention.

Referring more particularly to Figs. 1 to 3 inclusive, 5 designates the handle and 6 the frame of a lacrosse stick of a conventional construction. According to this invention the long side member 6a of the frame and the continuous inner end of the handle 5 are housed in a rubber sheath 7 which may be of any desired thickness. Rubber cushioning strips 8, of suitable thickness, are applied to the sheath 7 along opposite edges of the frame member 6a and are preferably made of a length co-extensive with that of the sheath. The end of the sheath remote from the handle 5 may terminate at the junction of the side frame member 6a with the end frame member 6b thus leaving the end member and the remaining short side member 6c of the frame uncovered. With this arrangement certain strands of the net 9 and the guard 10 are passed through openings 11 formed in the frame members 6b and 6c, the remaining strands of the net being passed through openings 12 provided in a lacing strip 13 attached to the rubber sheath 7. As shown in Fig. 2, the lacing strip 13 consists of a strip of fabric doubled upon itself to provide flatly engaging plies 13a and 13b in which the openings 12 are formed. A portion 13' of the ply 13a is flatly engaged with the inner side wall of the rubber sheath 7 and adhesively or otherwise united thereto. A similar portion 13' of the ply 13b is fitted between the lower wall portion of the sheath 7 and the lower cushioning strip 8 and united or consolidated therewith in any suitable manner as, for example, by vulcanizing or gluing.

Since the strands of the net 9 are threaded through openings in the lacing strip 13 instead of through openings in the frame member 6a as formerly, this frame member may be made lighter than has heretofore been the practice and will

still have the same strength owing to the absence of weakening openings therein. Said frame member 6a, because of its length, constitutes the most susceptible portion of the frame as regards warping. In the present instance this tendency to warp is substantially avoided by enclosing said frame member in the weatherproof rubber sheath herein described.

In playing lacrosse serious injuries are most frequently caused by a player being struck by the corner portion X of the frame of a stick held in the hands of another player and I, therefore, consider it advisable to provide the rubber sheath covering this portion of the frame with an extra rubber pad or cushion indicated at 14.

The construction shown in Fig. 4 is the same as that described in connection with Fig. 1, except that the rubber sheath is extended as at 7a to cover the end member 6b of the frame, said extension 7a being provided with a lacing strip 13c forming a continuation of the lacing strip 13 and provided with openings 13d through which the strands anchoring the front portion of the net are passed instead of being passed through the frame member 6b, as formerly.

In Fig. 5 I have shown a tennis racket having its wooden frame 17 encased in a rubber sheath 18 having a lacing strip 19 provided with openings 20 through which the strands 21 of the network are threaded instead of being threaded through openings in the frame itself.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. Game apparatus of the character described, having a net-work supporting frame substantially encased in a sheath of weatherproof material which presents relatively thick pad-like portions at opposite edges of the frame and has associated therewith a lacing strip to which strands of the net-work are attached without passing through the frame.

2. Game apparatus as claimed in claim 1, wherein the sheath is formed of resilient material and has secured thereto a

separately formed lacing strip provided with openings through which strands of the net-work are threaded.

3. Game apparatus as claimed in claim 1 or 2, wherein the pad-like portions of the sheath comprise separately formed rubber pads and/or strips which are attached to the sheath.

4. A lacrosse stick comprising, in combination, a net-work supporting frame provided with a handle extension, a sheath of rubber encasing the long side of the framework of the stick, a cushioning strip of rubber secured to and extending along the sheath, a lacing strip or strips carried by and co-extensive with the sheath, and a suitable net-work having its strands secured to the lacing strip or strips.

5. A lacrosse stick as claimed in claim 4, wherein the sheath is extended to encase the end frame member of the stick, and a further portion of lacing strip associated with the sheath extension for the purpose set forth.

6. A tennis racket comprising in combination a net-work carrying frame having a handle extension, a rubber sheath substantially encasing the frame, a fabric lacing strip or strips attached to the sheath, and a suitable net-work having its strands secured to the lacing strip or strips.

7. Game apparatus as claimed in any of the preceding claims wherein the lacing strip or each such strip comprises a piece of fabric doubled upon itself to provide flatly engaging plies, the free edge portions of said plies being separated from each other and secured respectively to the inner side and bottom portions of the sheath, while the contacting portions of the plies are perforated to receive the net-work strands.

8. Games apparatus of the kind set forth and substantially as described and shown in the accompanying drawings.

Dated this 1st day of May, 1934.

DICKER, POLLAK & MERCER,  
Chartered Patent Agents,  
20 to 23 Holborn, London, E.C.1.  
Agents for the Applicant.